

CLAIMS

[Claim(s)]

[Claim 1]A manufacturing method of saponins cultivating an undifferentiated cell lump obtained by removing a cell lump which does a callus obtained after subculture by a culture medium for callus induction in an organization of a medicinal ginseng radix plant body, and redifferentiates subculture for it by a culture medium for redifferentiation derivation at the time of this subculture, and performing component extraction.

[Claim 2]A manufacturing method of an undifferentiated cell lump which does subculture of the callus derived from a medicinal ginseng radix plant body by a culture medium for callus induction, cultivates an elasticity-sized callus by a culture medium for redifferentiation derivation, and is characterized by removing a cell lump which redifferentiated.

[Claim 3]An undifferentiated cell lump which does not form an organ by a culture medium for redifferentiation derivation and which is derived from a medicinal ginseng radix plant body.

[Claim 4]A manufacturing method of the saponins according to claim 1, wherein auxin of a culture medium for callus induction and concentration of cytokinin are 10^{-7} - 10^{-5} M, respectively and auxin concentration is more than concentration of cytokinin.

[Claim 5]A manufacturing method of the saponins according to claim 1 or 4 with which a subculture period of an derivation callus in a culture medium for callus induction is characterized by being 3-10 generations with four to six weeks of every passage cycles.

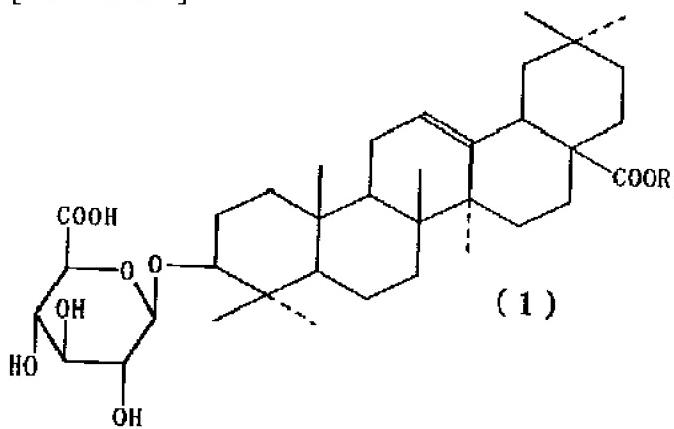
[Claim 6]A manufacturing method of the saponins according to claim 1, wherein concentration of auxin of a culture medium for redifferentiation derivation is 10^{-7} - 10^{-6} M and concentration of cytokinin is 1 / 10 - 1/100 of concentration. [of auxin]

[Claim 7]A manufacturing method of the saponins according to claim 1 characterized for a microorganism or its extraction ingredients, such as bacteria which raise each substance on a carbon source and acetic acid mevalonate pathway, plant sterol biosynthetic inhibitor, and saponin production to a culture medium for redifferentiation derivation, by independent, combining and adding.

[Claim 8]A manufacturing method of the saponins according to claim 1 whose medicinal ginseng radix plant body is *Panax japonicus*.

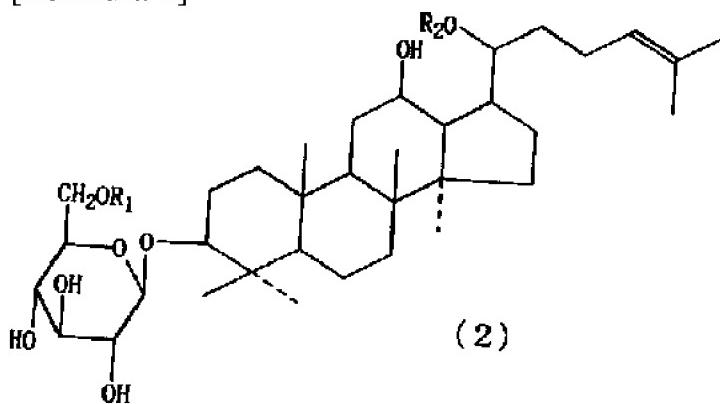
[Claim 9]Saponins of a following general formula (1) obtained by a manufacturing method of claim 8, (2), and (3).

[Formula 1]



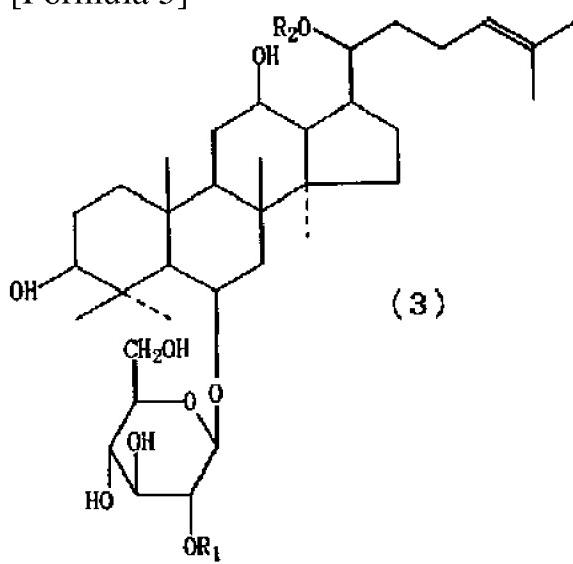
[R₁ is H or 1-hexose among a formula.]

[Formula 2]



[Among a formula, although R₁ and R₂ are H or 1-hexose, they are neither of 1-hexose.]

[Formula 3]



[R₁ and R₂ are the same as the above among a formula.]